

Emulation of game - Wishi Washy

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How to use:

1. You have to compile the code as it is made in Linux environment. I am trying to create a .exe file for the same.
2. Make sure that you have OpenCV installed on your system.
3. Command to compile :
`g++ -w cam1.cpp -o cam1 `pkg-config --libs opencv``
Command to run :
`./cam1`
4. Make sure the web cam is not facing towards any light. It will not give satisfactory results even if the laptop is under some very bright light. So make sure that the lighting conditions are moderate and not too bright. Otherwise you may try to change the function to set the value of 'thresh' accordingly to give the best results.
5. Make sure that your background is not too light. Objects of darker shade are a must if you want the whole screen to be erasable.
6. Enjoy.

What it does:

1. Captures a video frame from the web cam and creates an image of the same dimensions.
2. We try to make the whole picture white by moving before the web cam. Suppose the picture has N pixels, a person will win if he has converted more than $N-2000$ pixels to white.

3. It keeps track of the change in intensity of the frame by the web cam in comparison to the image created in (1). The comparison is done by a threshold value.

Something to know:

1. The image to be cleaned is derived from the web cam itself. The image at point i,j gives the intensity of the point i,j in the frame of the web cam.
2. The value of threshold: 'thresh' is set to 80 as it works best under most lighting conditions.
3. You can change the value of 'thresh' yourself or by uncommenting the lines(47, 48, 49 and 51) and commenting the line 50. It will change its value according to a function which keeps a track of the intensity of the surroundings.